

DOCUMENT RESUME

ED 432 834

EA 029 987

AUTHOR Verstegen, Deborah A.; Torrence, Patricia T.
TITLE Federal Aid to Education: A Student Level Analysis.
PUB DATE 1999-03-00
NOTE 26p.; Paper presented at the Annual Meeting of the American Education Finance Association (Seattle, WA, March 17-21, 1999).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Educational Equity (Finance); *Educational Finance; Elementary Secondary Education; Expenditure Per Student; *Federal Aid; Financial Support; Government School Relationship; Rural Schools; School Funds
IDENTIFIERS Virginia

ABSTRACT

A study that examined the magnitude of federal aid to individual students and the targeting of those funds based on need found that although federal aid to education averages 7 percent nationwide, little work has been done that disaggregates these amounts by locality. The study included an intradistrict analysis of federal-education aid per pupil. The goal was to explicate the federal role in education and provide greater insight on issues of equal educational opportunity for children and youth in schools and classrooms by providing better finance data. The study employed a post-hoc design in which per-pupil federal funding was examined for the 1991-92 school year. The subject pool was the entire universe of 2,038 students in a rural school district in Virginia. Funding profiles were developed for each student and compared to poverty using descriptive and inferential statistics. The results were grouped around such questions as What federal grants in aid were available in the school district? The findings show that total funding increased over time, but there was a sharp drop in the federal share of funds for elementary and secondary schools. Virginia's total federal revenue receipts were 7.7 percent in 1984 and 4.8 percent in 1994 of total aid received. (Seven tables present statistical findings.) (RJM)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

U.S. DEPARTMENT OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☒ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.
- ☐ This document is a reproduction of the original document as received from the person or organization originating it.

D. Verstegen

1

Federal Aid to Education:
A Student Level Analysis

Deborah A. Verstegen,
Associate Professor-Education Policy and Finance
University of Virginia
Curry School of Education
Charlottesville, Virginia

Patricia T. Torrence, Director of Federal Programs
Buckingham County School District
Buckingham, Virginia

Paper presented at the American Education Finance Association
Annual Meeting, Seattle, Washington, March 1999.

BEST COPY AVAILABLE

Introduction

Federal aid has as its primary goal the provision of access and equity in education for all children. Over time, some policymakers have debated whether Title I funds could be better targeted to high-poverty districts and schools thereby enhancing equitability. Others have urged consolidating some federal education aid into grants that give states more discretion in using these funds.¹ Still others find that the current meager levels of federal support reflect a marginal federal role and could be eliminated altogether without adverse ramifications.

This research focuses on the magnitude of federal aid to individual students, and the targeting of those funds based on need. Although federal aid to education averages 7.0 percent nationwide, little work has been done that disaggregates these amounts by locality, and no research has been located using pupil specific data. This fiscal case study examines these areas by providing an intradistrict analysis of federal education aid per pupil. The purpose is to inform the debate on the federal role in education and provide greater insight on issues of equal educational opportunity for children and youth in schools and classrooms by providing better finance data.

Design & Method

The study employed a post hoc design: per pupil federal funding was examined for the 1991-92 school year. The subject pool was the entire universe of 2,038 students in a rural school district in Virginia. Funding profiles were developed for each student and compared to poverty using descriptive and inferential statistics. Multiple sources of data on federal grants-in-aid were collected and analyzed to allow verification based on overlapping information

sources. Data included: the local district's budget; federal program applications and budgets; program class rolls; student membership in each school and grade; finance ledger files demonstrating expenditures by budget line items; the Certified Public Accountant's report; purchase orders, and review of personnel contracts (funded by federal dollars).² Ancillary information included interviews with local school officials; and analysis of state documents, e.g. Superintendents 1991-1992 Annual Report (Virginia Department of Education, 1992).

The following questions were addressed: What percentage of students received federal aid and what was size of the allocation by program? Was federal aid targeted to need by student and school? What are the implications for policy and practice

Definitions. Federal grants-in-aid examined included: ESEA--Title I: Helping Disadvantaged Children Meet High Standards, Title II: Eisenhower Professional Development Program; Title IV: Safe and Drug-Free Schools and Communities; Title VI: Innovative Education Program Strategies; Carl D. Perkins Vocational Education; Individuals With Disabilities Education Act, Part B; US Department of Agriculture Lunch Program.³ Poverty defined in this study was the combination of students being identified as free lunch and reduced lunch participants.⁴ Guidelines attached in Appendix A: "Household Size and Income Scale for Free and Reduced Price Meals, 1991-1992" were applied.⁵

Research Method Reliability and Validity. The reliability of these data was high because the pool contained the entire "universe" for one school district. The same results would occur within the same parameters. The data collected fully described the dollar percentages of the total monetary resources utilized by each student for instruction. Administrative overhead was not considered so the federal aid data err on the low side.

Generalizability cannot be inferred from a select case study.

Findings

Table 1 displays the total revenue receipts overtime, for elementary and secondary public schools, and the federal, state and local shares of those receipts. Even though total funding increased over this time, there was a large reduction in the federal share of funds for elementary and secondary school. In 1980, the federal government provided 9.8 percent of total aid; however, in 1985, the federal government provided only 6.2 percent of total aid, rising to 7.0 by 1994. Average state shares continually rose to an approximate 50 percent in the late 1970s when state resources surpassed local sources. Since that time, the state share has declined to 45.7 percent. Local shares of total revenue receipts for elementary and secondary public schools steadily decreased over time; they were 47.3 percent in 1994.

Virginia's total federal revenue receipts for elementary and secondary public schools were 7.7 percent in 1984 and 4.8 percent in 1994, showing a steady decrease over time. Virginia's state revenue receipts for public elementary and secondary schools were 53.9 percent in 1984 and 34.4 percent in 1994. Local revenue receipts for Virginia's public elementary and secondary schools were 38.4 percent in 1984 and 60.7 percent in 1994. Since 1984, federal funds as a percent of total for Virginia also have declined, from 7.7 (1985) to 4.8 percent (1994).

In 1994, of 138 school systems in Virginia, 43 received over 10 percent of total school aid from federal sources.⁶ Of these, four⁷ received over 15 percent of total school aid from federal sources. For elementary and secondary public schools in the select school district examined in this study, total federal revenue receipts for 1994 were \$1.2 million, or 13.0 percent. Local wealth as measured by the local composite index was .2788 (on a scale

of 0 to .80) which indicated that the local ability-to-pay for education was meager.

Question 1: What federal grants in aid were available in the school district and what was size of the allocation by program?

In Table 2, 1991-92 fiscal resources for the selected school district are summarized. Total federal appropriations were over \$1.2 million or almost 14 percent of total support from all sources. Federal aid was comprised of seven major funding streams (administration overhead was not considered). ESEA, Title I contributions were over \$528,000 or 50 percent of total federal funds in the district. United States Department of Agriculture (USDA) funds for lunches comprised 33.32 percent of total federal funds or \$450 thousand, which included commodities for regular and summer school programs.⁸ Special education, funded under IDEA, Part B, comprised 10 percent of total federal aid; and, Vocational Education, comprised 5 percent. ESEA, Title VI (formerly Chapter 2), and Safe and Drug-Free Schools and Communities (Chapter IV) were each 1.00 of total federal aid; Professional Development funds were less than 1% of total federal aid (.01%).

Targeted aid included Title I, Vocational Education, and Special Education. ESEA, Title I (compensatory education) amounted to \$1,600 per pupil, IDEA grants were \$330 per pupil, and vocational education provided \$47 per pupil. Federal funds available in the general aid category, were ESEA, Title VI (Chapter 2), which amounted to over \$26,000 for the 1991-92 school year or almost \$13 per student. ESEA, Title II, professional development funds, also classified as general aid, amounted to a total of \$3,589. These funds were distributed equally among all students at \$2. Drug education monies (general federal aid) amounted to \$26,772 and were distributed equally among all students at \$13.

Question 2: What percentage of federal aid was available by individual student and how did funds vary across all students?

Table 3 displays federal aid per pupil in the selected school district. Because these funds do not include administrative overhead, they err on the low side. Recent research suggests that for the largest federal aid programs, between 4 and 16 percent of aid is used for administration.⁹

The data indicate that federal aid for this school district was a substantial source of funding--well beyond the 7 percent often thought when aggregate data are used to determine the federal share. All students in the district received at least 5 percent or more of their total funding from federal aid, likely from general aid allocations. Forty-six percent (930) of the students received between 5 and 10 percent of their total funding from federal dollars. One hundred seventy-four students (8.5 percent) received between 10.01 to 15 percent of their total funds from federal aid.

Interestingly, six hundred twenty-one students (30.5 percent) received between 15.01 to 20 percent of their total funds from federal aid; 98 (4.8 percent) received between 20.01 to 25 percent of their total funds from federal aid. Of all students, 214 (10.5 percent) students received between 25.01 to 30 percent of their total funds from federal aid. One student received over 30 percent, approximately one-third (32.86) of his/her total funds from federal aid. The average federal funding percentage was 14.00; the median was 14 percent.

In sum, 45 percent of district students received over 15 percent of funding from federal sources. Over ten percent received as much as 30 percent of aid from federal sources. Using the GAO estimate of an average 10 percent for administrative costs across all federal programs and adding these to the above data, the data indicate that almost 1/2 of district students (45 percent) received 1/4 of their funding from federal sources; over ten percent of

district students received as much as 40 percent of funding from federal aid; one student received 45 percent of funding for their education program from federal sources.

Question 3: What federal program options were available by student?

Table 4 shows federal program options for each student. These options included categorical and general aid. Of all federal programs (categorical and general), 550 (27 percent) students utilized 3 federal funding streams; this distribution resulted from the three funding streams that were disbursed as general aid to all students. Another 491 students (24.1 percent) used 4 federal programs; 22 (1.1 percent) utilized 5 federal programs; 32 (1.6 percent) utilized 6 federal programs; 491 (24.1 percent) utilized 7 federal programs; 331 (16.2 percent) utilized 8 federal programs; 11 (.5) percent students utilized 9 federal programs; 46 (2.3 percent) utilized 10 federal programs, and 64 (3.1 percent) students utilized 11 federal programs. The mean was 5.5 student selected federal options. The range was 8 student selected options.

Thus, federal aid bought several programs and services for district students. For example, one student with 25 percent federal aid of total funds coming from federal aid, received free lunch and had three vocational options, purchased with federal funds. Another elementary student receiving \$1,440 (over one-third of total aid) from federal funds was poverty status and received regular school Title 1 services. In addition, this student received ESEA, Chapter 2 (now Title VI), Drug Education (now Title IV), teacher professional development assistance (now ESEA, Title II), which supported improved instructional opportunities.

Question 4: How did federal aid relate to poverty in the selected school district?

Of the 2,038 students in the district and receiving federal aid, 960 students (47 percent) were identified as "poverty" (receiving free or reduced lunch). Poverty defined as free lunch involved 815 students or 40 percent of the total student population. Poverty defined as reduced lunch involved 146 students or 7.1 percent of the population. There were no missing cases since 52.9 percent of the population paid full price lunch (1,078 students).

Tables 5, 6 and 7 display the data on poverty and federal aid. Table 5 provides descriptive statistics on students in poverty in each federal program. Table 6 provides correlations between poverty and funding for each federal program together with total federal aid. Table 7 provides school-level information that compares overall school level poverty by percentage and the percent of Title I students in poverty.

Pearson product-moment correlations between poverty and total federal aid were high and positive: ($r = .7351$). The findings were significant ($p \leq .0001$). There were no missing observations. However, because of colinearity, lunch funds were removed and correlations rerun. The resulting data showed there was a positive and significant linkage between total federal aid per pupil, and poverty. ($r = .167$, $p = .01$). Title I largely contributed to this result. The data indicate that federal aid is reaching children in poverty.

ESEA, Chapter 1. (Title I) funding and poverty in the selected school district. Of the 2,038 student population, 330 or only 16 percent were identified as ESEA, Chapter 1 (Title I) students. A total of 717 Chapter 1 (Title I) offerings were utilized, indicating the same students were involved in both regular school year and summer school programs as well as after school programs, funded by ESEA, Chapter 1 (Title I). However, poverty status students included 236 or 70 percent of the total ESEA, Chapter 1 (Title I) population.

Pearson product-moment correlations between funding for pupils in poverty (lunch) and Chapter 1 (Title I) funding as a percent of total federal aid, were significant and positive,

($r = .0967$; $p \leq .0001$). As poverty increased, federal categorical funding for ESEA, Chapter 1 (Title I), increased (Table 6).

Poverty and general federal aid for professional development, innovative programs and drug education under ESEA. General federal aid targeted 47 percent of district students. This is the average percent of children in poverty in the school system. Correlations between poverty and ESEA, Chapter 2 (now ESEA, Title VI), NDEA, Title II (now ESEA, Title II), and Drug Education Act (now ESEA, Title IV) were ($r = -.6975$) were moderate, negative, and significant ($p \leq .0001$). As poverty increased, federal general aid decreased. This indicates these general federal funds were distributed without regard to need.

Vocational education funding and poverty in the selected school district.

Approximately one-third of the district student body took vocational education in grades 8-12, and about one-third of the vocational students were identified at the poverty level. Thus, fewer students in poverty participated in the program than average (47.1 percent). These findings should be viewed with caution however, as actual poverty measures were unavailable and proxies (free and reduced price lunches) were used in this study--however fewer secondary students participated in the program. It is possible that larger numbers of vocational education students met the poverty definition.

Moderate and negative relationships were found ($r = -.4032$). The data were significant ($p \leq .0001$). This indicated that as funding for vocational education increased, poverty decreased.

Special education and poverty in the selected school district. Although IDEA special education funding is categorical aid, distributed based on all students receiving special

education and related services, as a result of the meager amount of federal aid received, the LEA further targeted the federal funding for two categorical programs: preschool students with disabilities and learning disabled (LD) resource programs. Nine special education students were full price lunch; 6 students were free lunch; 2 students were reduced-lunch status. This totaled only 17 students who received federal dollars from IDEA funding programs; 8 were poverty status (see Table 11). This was four percent of total identified special education district students. A total of \$81,000 for equipment and personnel was provided for 8 preschool students and 9 LD self-contained students.

Pearson product-moment correlations of poverty and special education were negative and low ($r = -.0480$). The data were significant ($p \leq .0001$). This indicates that special education funded through federal aid was not related to poverty.

Nevertheless, in the selected school district, there were 422 students that received special education services; thus, almost 25 percent district students were labeled as special education. The district's special education students were classified as having 1, 2, or 3 services under the IDEA definitions. Their funding support was from state aid. Of all district students receiving special education services from federal and state funding, 47.1 percent were identified at the poverty level (free and reduced lunch).

Poverty and Title I allocations by school. Table 7 shows a school-by-school comparison of school enrollment, poverty status, numbers and percentage of students (who paid full price lunch, or received free lunch, or received reduced lunch prices). As shown, Title I targeted students in poverty at above average levels. Because of high poverty, Schools A, C and D have subsequently become school-wide project schools, as permitted

under the IASA (1994) reauthorization of ESEA.

Title I funds were allocated to the elementary schools in the district. Of the 2,038 students, there was a total of 1,328 or 65.2 percent of students at the elementary level; 295 students or 14.5 percent of the student body at the middle school level; and 415 or 20.5 percent of all students at the secondary level.

Fifty-one percent of the students at the elementary level were classified as "poverty" and received free or reduced lunch. At the middle school level, 58 percent paid full price lunch and 42.1 percent received free or reduced lunch (104 students received free lunch and 20 students received reduced lunch). At the secondary level, 309 paid full price lunch; 95 received free lunch; 11 received reduced lunch. This was a 25 percent poverty identification.

School A had 53.4 percent of total school students who received free or reduced lunch and were classified as "poverty status" but Title I participants were 80.6 percent poverty status. In School B there were 499 students or 24.5 percent of total district students. Of students in School B (48.9 percent) were "poverty" level. Title I participants were 63.9 percent poverty. School C had 337 students (16.5 percent district students) enrolled. Of the students at School C, 53.7 percent were classified as poverty status. Title I participants were 69.2 percent poverty. At School D, 69.6 percent of all students were poverty status. (Of all the students in the district who were classified as poverty, 35.3 percent, were attending School D.) Title I participants were 74.7 percent poverty. In School E, there was a total of 295 students or 14.5 percent of all district students. School E housed 42.1 percent "poverty" students. There were no Title I participants as the district allocated Title I funds to elementary schools and this was a middle school, however, vocational

education participants were 41.9 percent poverty status. In School F, 25.6 percent students received free and reduced lunch (poverty status). However, no Title I services were not available to the high school as allocations were targeted to elementary schools. Federal general aid--innovative programs, Professional Development, Drug Education participants--reflected overall school percentages of students in poverty in each school.

Question 4: How should federal aid be distributed, as general or categorical aid? How might equity be increased through federal aid?

In reviewing the data, an ancillary question emerged. Given the extent of the need and the level of resources provided by federal aid, the question of whether federal funds would have a larger impact if provided through general funding rather than categorical arose. Data analysis showed that if all federal aid were distributed equally, an additional \$360 per pupil would be provided, supplementing state and local aid of \$3,620 for a total of \$3,980.

Nonetheless, funding would still be well below the state average of \$4,726 indicating that when broadly distributed, federal aid loses its impact due to the relatively low level of funds, and fails to close the gap between poor and wealthy districts in the state. But for a child receiving services in Title I, another \$1,600 provides a boost out of poverty and raises resource levels almost 45 percent.

The district examined in this study was 47 percent poverty and statewide in the lowest quartile in spending (108th out of 138 districts). These data raise questions about comparability requirements and suggest that fruitful approach for increasing equity would be to provide incentives or sanctions to states to reduce disparities between wealthy and poor

districts. At the same time increased federal funding is needed to provide assistance to meet need. In this study of 422 special education students, federal aid only reached 17; of 960 children in poverty, Title I only supported 330 (one-third). High school and middle school students did not receive services because funding was not available.

Clearly, in the current context of raising standards and assessing performance, education reform and school finance reform work more effectively together than either would alone.

Table 1

School Funding 1970-1997--Percent Federal, State, and Local Shares

School Year	Revenue Receipts (thousands)					
	Federal		State		Local	
	Amount	Percent of Total	Amount	Percent of Total	Amount	Percent of Total
1969-70	3,219,557	8.0	16,062,776	39.9	20,984,589	52.1
1970-71	3,753,461	8.4	17,552,566	39.4	23,205,265	52.1
1971-72	4,467,969	8.9	19,133,256	38.3	26,402,420	52.8
1972-73	4,133,358	7.9	21,320,239	40.7	26,933,155	51.4
1973-74	4,701,436	8.3	24,299,155	42.7	27,868,712	49.0
1974-75	5,089,262	8.1	27,471,949	43.6	30,485,563	48.4
1975-76	5,948,918	8.5	30,616,967	43.7	33,463,141	47.8
1976-77	6,354,615	8.4	32,983,433	43.8	35,965,346	47.8
1977-78	7,231,520	8.8	36,369,088	44.3	38,545,341	46.9
1978-79	7,769,190	8.8	41,524,286	47.3	38,506,927	43.9
1979-80	9,020,165	9.2	47,928,660	49.1	40,685,963	41.7
1980-81	9,285,193	8.7	51,375,525	48.2	45,981,602	43.1
1981-82	8,419,359	7.4	54,573,117	47.9	51,006,513	44.7
1982-83	8,691,476	7.2	57,449,038	47.7	54,345,538	45.1
1983-84	9,005,465	7.0	61,611,270	47.8	58,258,735	45.2
1984-85	9,532,780	6.8	69,107,452	49.0	62,372,728	44.2
1985-86	10,350,843	6.7	75,934,598	49.4	67,521,084	43.9
1986-87	10,552,574	6.4	81,542,173	49.8	71,672,130	43.8
1987-88	11,308,297	6.4	86,870,697	49.3	78,086,761	44.3
1988-89	12,342,120	6.4	93,795,792	48.5	87,096,492	45.1
1989-90	13,184,192	6.3	100,789,214	48.3	94,684,961	45.4
1990-91	14,177,612	6.3	108,020,719	48.2	101,697,476	45.4
1991-92	15,703,674	6.7	111,348,496	47.4	107,871,488	45.9
1992-93	17,521,227	7.0	115,854,844	46.8	114,329,500	46.2
1993-94	18,423,020	7.1	117,646,469	46.0	119,699,723	46.9
1994-95	19,587,397	6.9	123,086,439	47.6	125,075,957	45.5
1995-96	19,822,759	7.0	134,989,140	48.1	128,142,330	45.0
1996-97	20,612,840	6.9	146,679,859	48.9	132,702,752	44.2
1997-98						

Data Source: National Education Association, Estimates of School Statistics (selected years.) West Haven, CT: Author.

Table 2

Local, State, and Federal Dollars and Federal Aid By Program

	Total	Dollars	Percent Of Total
Federal Aid*	Dollars	Per Pupil	Federal Dollars
ESEA, Title I	\$528,204	\$1,600	50.00 %
ESEA, Title VI	26,000	13	1.00 %
Professional Development	3,600	2	.01 %
Drug Education	26,770	13	1.00 %
Vocational Education	47,495	47	5.00 %
IDEA	81,500	330	10.00 %
USDA	450,000	170	33.32 %
*Total Federal Aid	\$1.2 million	13.69 % of Total Aid	
Total State Aid	\$4.9 million	50.00 % of Total Aid	
<u>Total Local Aid</u>	<u>\$3.7 million</u>	<u>36.31 % of Total Aid</u>	
Total Budget	\$9.8 million	100.00 %	

Table 3

Federal Aid as a Percentage of Total Dollars for all Students in the Selected School District

% Federal Aid of Federal/ State/Local	Range of Federal Dollar Amounts	N	Student Percent	Cumulative Percentage
≥ 0.0 - 5.0	0 - 201	0	0	0
5.1 - 10	202 - 303	930	45.6	45.6
10.1 - 15	347 - 513	174	8.5	54.1
15.1 - 20	533 - 726	621	30.5	84.6
20.1 - 25	771 - 888	98	4.8	89.4
25.1 - 30	1005 - 1102	214	10.5	99.9
30.1 - 35	1103 - 1438	1	0.2	100.0
Mean	13.69			
Median	13.55			
Range	26.43			

Table 4

Student Selected Federal Program Options

Student Options	Students (N)	Student Percent
Receives 3 federal program funds	550	27.0
Receives 4 federal program funds	491	24.1
Receives 5 federal program funds	22	1.1
Receives 6 federal program funds	32	1.6
Receives 7 federal program funds	491	24.1
Receives 8 federal program funds	331	16.2
Receives 9 federal program funds	11	.5
Receives 10 federal program funds	46	2.3
Receives 11 federal program funds	64	3.1
Total	2038	100.0

Mean	5.527
Median	4.000
Mode	3.000
Standard Deviation	2.295
Range	8.000
Minimum	3.000
Maximum	11.000
Valid Cases	2038.000
Missing Cases	0.000

Table 5

Relationships Between Poverty and Total (100%) Federal Programs: Descriptive Statistics**

Federal Program	Number of Total Students	Poverty Variable (Free & Reduced Price Lunch)			
		Full Price	Free	Reduced	Free & Reduced Lunch
Title I	330	29.3%	64.4%	6.0%	70.4%**
Title VI (Chapter 2)	2,038	52.9	40.0	7.1	47.1
Professional Dev'lpmt	2,038	52.9	40.0	7.1	47.1
Vocational Education	978	68.3	27.4	4.3**	31.7**
Drug Education	2,038	52.9	40.0	7.1	47.1
Special Education	17	52.9	35.3	11.8**	47.1
USDA	2,038	52.9	40.0	7.1	47.1

*1994 Reauthorization of ESEA program appears in parentheses.

**Some students received more than one offering within federal programs.

Table 6

Pearson Product Moment Correlation Coefficients Between Federal Aid by Program as a Percentage of Total Federal Aid and the Percent of Funding for Free and Reduced Price Lunches (Poverty) as a Percent of Total Federal Aid

Federal Programs	ESEA, Chapter 1 (Title I)	ESEA, Chapter 2 (Title VI)	Vocational Education Act	Special Education Act (IDEA)	NDEA, (ESEA, Title II)	Drug Education Act (ESEA, Title IV)	Free & Reduced Lunch	Federal Total
ESEA (Chapter 1 [Title I])	1.0000	-.3109**	-.2133**	-.0348	-.3109**	-.3109**	.0967**	.4025**
ESEA (Chapter 2, Title VI)	-.3109**	1.0000	-.1425	-.0679	1.0000**	1.0000**	-.6975**	-.7864**
Vocational Education Act	-.2133**	-.1425**	1.0000	-.0028	-.1425**	-.1425**	-.4032**	-.3074**
Special Education Act, IDEA	-.0348	-.0679**	-.0028	1.0000	-.0679**	-.0679**	-.0480*	.0785**
NDEA (ESEA, Title II)	-.3109**	1.0000**	-.1425**	-.0679**	1.0000	1.0000**	-.6975**	-.7864**
Drug Education Act (ESEA, Title IV)	-.3109**	1.0000**	-.1425**	-.0679**	1.0000**	1.0000	-.6975**	-.7864**
Free & Reduced Lunch	.0967**	-.6975**	-.4032**	-.0480*	-.6975**	-.6975**	1.0000	.7351** _{a/}
Federal Total Percentage	.4025**	-.7864**	-.3074**	.0785**	-.7864**	-.7864**	.7351**	1.0000

*Significant $p \leq .05$

**Significant $p \leq .01$

_{a/} Total federal dollars (less lunch dollars, poverty factor) by lunch dollars

$r=0.1677$

$p \leq 0.0100$

Table 7

Total Poverty Students (Number/Percentages) by School

		Poverty Status						
		Full Price Lunch		Free Lunch		Reduced Lunch		Total Poverty Status
School	N	N	%	N	%	N	%	%
A	232	108	46.6	95	40.9	29	12.5	53.4
Title I	36	7	19.4	27	75.0	2	5.6	80.6
B	499	255	51.1	206	41.3	38	7.6	48.9
Title I	97	35	36.1	54	55.7	8	8.2	63.9
C	337	156	46.3	157	46.6	24	7.1	53.7
Title I	91	28	30.8	59	64.8	4	4.4	69.2
D	260	79	30.4	158	60.8	23	8.8	69.6
Title I	107	27	25.2	73	68.2	7	6.5	74.7
E	295	171	58.0	104	35.3	20	6.8	42.1
Title I	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
F	415	309	74.4	95	22.9	11	2.7	25.6
Title I	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

References

1. See GAO, School Finance: State and Federal Efforts to Target Poor Students. (GAO/HEHS-98-36). Washington, D.C.: Author, 1998, p. 1.
2. General federal aid was divided equally among students and included funds from Drug Education, Chapter 2, NDEA Title II, and USDA commodity support. ESEA funding was subcategorized as Chapter 1 (now Title I), regular and summer, Chapter 2 (now Title VI), and Drug Education (now Title IV). Federal general aid such as Chapter 2, Professional Development and Drug Education were divided equally among all students. All students had equal access to services. Categorical aids included ESEA Title I, Carl P. Perkins for Vocational Education, and special education funding. Vocational funds were broken into subcategories of 1, 2, or 3, depending on the number of selected vocational programs per student. Total vocational dollars were obtained, then divided according to the total number and cost of vocational offerings, in which a student participated. This meant that some students may have received one offering from federal vocational education dollars or as many as three offerings.

Also coded was whether or not the pupil received special education and the funds involved. The Individuals with Disabilities Education Act (IDEA), was subdivided by all of its categories: learning disabilities (self-contained); learning disabilities (resource); speech; physical therapy; occupational therapy; visually impaired; orthopedically impaired; preschool handicapped; emotionally disturbed (self-contained); emotionally disturbed (resource); and mentally impaired students (self-contained). Although, federal aid was placement neutral, state and local designations of placement are shown. The Individuals With Disabilities Education Act (IDEA) dollars were converted to percentages of total federal aid, by student, and tabulated by targeted disability. The local district targeted IDEA, Part B funds for Pre-School Handicapped and Learning Disabled, resource.

School lunch programs were disbursed as both general and categorical aid and included free and reduced price lunches and commodities. USDA commodity values applied to all students and amounted to \$170 per pupil. USDA categorical aid provided supplemental funds to provide milk, free and reduced meal programs. Free and reduced lunch students received dollar amounts allotted per meal, per regular school year and summer school. \$13,620 were assigned to free and reduced students by targeting \$172 for free and \$40 for reduced lunch funding per pupil.

Total federal dollars then were calculated as a percentage of grand total dollars. Also, the percentage of federal aid by program to total federal dollars was determined for ESEA (Chapter 1 and Chapter 2), Vocational Education, Special Education, USDA, Drug Education and NDEA, Title II. Federal funding as a percentage of total aid was utilized in comparisons to place data into a similar scale.

3. Program allocations are from 1991-92; all references are to current program titles. Antecedent programs are listed below and current titles are listed in parentheses.

1. Elementary and Secondary Education Act (ESEA) (P.L. 100-297) [Augusta-Hawkins Reauthorization]

Compensatory Education

Chapter 1 (1) - Federal funds serving identified economically disadvantaged students. (ESEA, TITLE I-categorical)

Chapter 1 Summer-(CIS) Identified ESEA students with summer school education.(ESEA, TITLE I-categorical)

Dwight D. Eisenhower Professional Development National Defense Education Act, NDEA, Title II; -served all students for science and math education (ESEA, TITLE II-general)

Safe and Drug-Free Schools and Communities (DE) - (P.L. 99-570). Monies were divided evenly among all K-12 students (P.L. 103-382) (ESEA; Title IV-general).

Innovative Education Program Strategies (Chapter 2) (2) - Federal funds serving all students with library resources and all teachers with staff development. (ESEA TITLE VI-general)

2. Vocational Education (VE) - Carl D. Perkins Vocational Education Act and Applied Technology Educational Act (P.L. 98-524) identified students in each program. Some students participated in more than one program; therefore, monies for career counseling and equipment were equally distributed among students and added to the number of vocational selections per student, for aggregate calculations.(categorical)
3. Individual With Disabilities Education Act (SE) (P.L. 101-476) - Part B-Funds from this Act addressed services for self-contained preschool, resource learning disabled, and self-contained educable mentally retarded (categorical)

Educable Mentally Retarded (EMR) - Identified students receiving services from EMR teachers.

Learning Disabled-Resource (LR) - Identified students receiving services from LD resource teachers.

Preschool Handicapped (PH) - Identified students receiving services from preschool handicapped education.

4. U. S. Department of Agriculture National School Lunch

Breakfast Milk (BM) - (P.L. 101-147) a part of the United States Department of Agriculture Food and Nutrition Service for Children for regular school year.

Breakfast Summer (SB) - (P.L. 101-147) National School Lunch Act provided breakfast for students during summer school.

Breakfast Winter (WB) - (P.L. 101-147) National School Lunch Act provided identified students with breakfast during the regular school year.

Free Lunch (LH) - (P.L. 101-147) provided by the United States Department of Agriculture Food and Nutrition Service for Children.

Lunch Milk (LM) - (P.L. 101-147) National School Lunch Act provided identified students with milk for lunch during the regular school year.

Lunch Summer (SL) - (P.L. 101-147) Lunch was provided to all summer school students.

Lunch Winter (WL) - (P.L. 101-147) Lunch was provided to identified students during the regularly school year.

Reduced Lunch - (P.L. 101-147) provided to identified students during the regular school year.

(Only commodities were general aid)

4. Student ID numbers, gender, sex, and school assignment were identified. Students then were coded as being on free lunch with 1, reduced lunch with 2, or full paid lunch left blank. Students coded as 1 or 2 were considered "poverty status" for the purpose of the study. These data identified students receiving free, reduced, and free plus reduced categories to determine if there were any significance in the variance among relationships between federal aid and free and reduced lunch recipients. In addition, data were obtained from the United States Department of Agriculture on funding for school lunch programs. Examples of USDA data were summer school lunch programs, summer school breakfast, summer school lunch, summer school snack, as well as winter breakfast, winter lunch and winter milk.

5. Antecedent programs analyzed are referred to by current statutory authority--ESEA (Elementary and Secondary Education Act) Chapter 1, (now known as Title I), Chapter 2 (now known as Title VI), Drug Education (now known as ESEA, Title IV), and NDEA, Title II (now known as ESEA, Title II), and summer school experiences for identified

students receiving ESEA funding (Title I).

6. Accomack, Brunswick, Buchanan, Buckingham, Caroline, Carroll, Charlotte, Cumberland, Danville, Dickenson, Dinwiddie, Franklin County, Fredericksburg, Greenville, Halifax, Hopewell, King and Queen, Lee, Lunenburg, Lynchburg, Mecklenburg, Middlesex, Norfolk, Northampton, Norton, Nottoway, Petersburg, Pittsylvania, Portsmouth, Prince Edward, Prince George, Rappahannock, Roanoke City, Russell, Scott, Southampton, Suffolk, Sussex, Surry, Washington, Wise, Wythe, and York

7. (York, Lee, Nottoway, and Fredericksburg)

8. Reimbursements for free lunch per pupil totaled \$170; and \$40 were reimbursed for reduced lunch.

9. U. S. Department of Education (1998). The Use of Federal Education Funds for Administrative Costs. Washington, D.C.: Author, p. v-vi. GAO found the average cost was 10 percent for Title I; South Carolina data showed that administration accounted for 8 percent of spending across all federal programs, with 16 percent for special education, Safe and Drug Free Schools, 10 percent, and Perkins vocational education, 3 percent.